

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

**MICROUNITY SYSTEMS ENGINEERING,
INC., a California corporation,**

Plaintiff,

VS.

**ADVANCED MICRO DEVICES, INC., a
Delaware corporation**

Defendant.

Civil Action No. 2:06cv486

PATENT CASE (TJW)

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff MICROUNITY SYSTEMS ENGINEERING, INC. for its First Amended
Complaint against Defendant ADVANCED MICRO DEVICES, INC. alleges:

THE PARTIES

1. MicroUnity Systems Engineering, Inc. ('MicroUnity') is a corporation duly organized and existing under the laws of the State of California.

2. MicroUnity is informed and believes, and on that basis alleges, that Defendant ADVANCED MICRO DEVICES, INC. ('AMD') is a corporation duly organized and existing under the laws of the state of Delaware.

JURISDICTION AND VENUE

3. The court has subject matter jurisdiction pursuant to 28 U.S.C. §§1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§1 *et seq.* Venue is proper in this federal district pursuant to 28 U.S.C. §§1391(b)-(c) and 1400(b) in that AMD has done business in this District, has committed acts of infringement in this District, and continues to commit acts of infringement in this District, entitling MicroUnity to relief.

INFRINGEMENT OF U.S. PATENT NO. 5,742,840

4. On April 21, 1998, United States Patent No. 5,742,840 (the "840 patent") was duly and legally issued for an invention entitled 'General Purpose, Multiple Precision Parallel

Operation, Programmable Media Processor.' MicroUnity was assigned the '840 patent and continues to hold all rights and interest in the '840 patent. A true and correct copy of the '840 patent is attached hereto as Exhibit A.

5. AMD has infringed and continues to infringe the '840 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD's processors and products with 3DNow and SSE-compatible technology including AMD's Athlon XP, Athlon MP, Sempron, Athlon64, Athlon64 FX, Athlon64 X2, Opteron, Dual-Core Opteron, Next Generation Opteron, Quad-Core Opteron, Turion64, Turion64 FX, Geode NX, Barcelona and Phenom processors, and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the '840 patent pursuant to 35 U.S.C. § 271.

6. AMD's acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD's wrongful acts in an amount subject to proof at trial. AMD's infringement of MicroUnity's exclusive rights under the '840 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

7. Upon information and belief, AMD's infringement of the '840 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

INFRINGEMENT OF U.S. PATENT NO. US 7,216,217

8. On May 8, 2007, United States Patent No. 7,216,217 (the "217 patent") was duly and legally issued for an invention entitled 'Programmable Processor with Group Floating-Point Operations.' MicroUnity was assigned the '217 patent and continues to hold all rights and interest in the '217 patent. A true and correct copy of the '217 patent is attached hereto as Exhibit B.

9. AMD has infringed and continues to infringe the '217 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD's processors and products with 3DNow and SSE-compatible technology including AMD's Athlon XP, Athlon MP,

Sempron, Athlon64, Athlon64 FX, Athlon64 X2, Opteron, Dual-Core Opteron, Next Generation Opteron, Quad-Core Opteron, Turion64, Turion64 FX, Geode NX, Barcelona and Phenom processors, and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the '217 patent pursuant to 35 U.S.C. § 271.

10. AMD's acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD's wrongful acts in an amount subject to proof at trial. AMD's infringement of MicroUnity's exclusive rights under the '217 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

11. Upon information and belief, AMD's infringement of the '217 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

INFRINGEMENT OF U.S. PATENT NO. US 5,794,061

12. On August 11, 1998, United States Patent No. 5,794,061 (the "'061 patent") was duly and legally issued for an invention entitled 'General Purpose, Multiple Precision Parallel Operation, Programmable Media Processor.' MicroUnity was assigned the '061 patent and continues to hold all rights and interest in the '061 patent. A true and correct copy of the '061 patent is attached hereto as Exhibit C.

13. AMD has infringed and continues to infringe the '061 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD's processors and products with 3DNow and SSE-compatible technology including AMD's Athlon XP, Athlon MP, Sempron, Athlon64, Athlon64 FX, Athlon64 X2, Opteron, Dual-Core Opteron, Next Generation Opteron, Quad-Core Opteron, Turion64, Turion64 FX, Geode NX, Barcelona and Phenom processors, and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the '061 patent pursuant to 35 U.S.C. § 271.

14. AMD's acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD's wrongful acts in an amount subject to proof at trial. AMD's infringement of MicroUnity's exclusive rights under the '061 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

15. Upon information and belief, AMD's infringement of the '061 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

INFRINGEMENT OF U.S. PATENT NO. 5,809,321

16. On September 15, 1998, United States Patent No. 5,809,321 (the "321 patent") was duly and legally issued for an invention entitled 'General Purpose, Multiple Precision, Parallel Operation, Programmable Media Processor.' MicroUnity was assigned the '321 patent and continues to hold all rights and interest in the '321 patent. A true and correct copy of the '321 patent is attached hereto as Exhibit D.

17. AMD has infringed and continues to infringe the '321 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD's processors and products with 3DNow and SSE-compatible technology including AMD's Athlon64 FX, Athlon64 X2, Dual-Core Opteron, Next-Generation Opteron, Quad-Core Opteron, Opteron clusters, Turion 64 X2, Barcelona, and Phenom processors, and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the '321 patent pursuant to 35 U.S.C. § 271.

18. AMD 's acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD's wrongful acts in an amount subject to proof at trial. AMD's infringement of MicroUnity's exclusive rights under the '321 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

19. Upon information and belief, AMD's infringement of the '321 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

INFRINGEMENT OF U.S. PATENT NO. 6,006,318

20. On December 21, 1999, United States Patent No. 6,006,318 (the "318 patent") was duly and legally issued for an invention entitled 'General Purpose, Dynamic Partitioning, Programmable Media Processor.' MicroUnity was assigned the '318 patent and continues to hold all rights and interest in the '318 patent. A true and correct copy of the '318 patent is attached hereto as Exhibit E.

21. AMD has infringed and continues to infringe the '318 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD's processors and products with 3DNow and SSE-compatible technology including AMD's Athlon XP, Athlon MP, Sempron, Athlon64, Athlon64 FX, Athlon64 X2, Opteron, Dual-Core Opteron, Next Generation Opteron, Quad-Core Opteron, Turion64, Turion64 FX, Geode NX, Barcelona and Phenom processors, and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the '318 patent pursuant to 35 U.S.C. § 271.

22. AMD's acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD's wrongful acts in an amount subject to proof at trial. AMD's infringement of MicroUnity's exclusive rights under the '318 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

23. Upon information and belief, AMD's infringement of the '318 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

INFRINGEMENT OF U.S. PATENT NO. 6,584,482 B1

24. On June 24, 2003, United States Patent No. 6,584,482 B1 (the "482 patent") was duly and legally issued for an invention entitled 'Multiplier Array Processing System With

Enhanced Utilization At Lower Precision.' MicroUnity was assigned the '482 patent and continues to hold all rights and interest in the '482 patent. A true and correct copy of the '482 patent is attached hereto as Exhibit F.

25. AMD has infringed and continues to infringe the '482 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD's processors and products with 3DNow and SSE-compatible technology including AMD's Barcelona and Phenom processors and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the '482 patent pursuant to 35 U.S.C. § 271.

26. AMD's acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD's wrongful acts in an amount subject to proof at trial. AMD's infringement of MicroUnity's exclusive rights under the '482 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

27. Upon information and belief, AMD's infringement of the '482 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

INFRINGEMENT OF U.S. PATENT NO. 6,643,765 B1

28. On November 4, 2003, United States Patent No. 6,643,765 B1 (the "'765 patent") as duly and legally issued for an invention entitled 'Programmable Processor with Group Floating Point Operations.' MicroUnity was assigned the '765 patent and continues to hold all rights and interest in the '765 patent. A true and correct copy of the '765 patent is attached hereto as Exhibit G.

29. AMD has infringed and continues to infringe the '765 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD's processors and products with 3DNow and SSE-compatible technology including AMD's Athlon XP, Athlon MP, Sempron, Athlon64, Athlon64 FX, Athlon64 X2, Opteron, Dual-Core Opteron, Next Generation Opteron, Quad-Core Opteron, Turion64, Turion64 FX, Geode NX, Barcelona and Phenom

processors, and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the '765 patent pursuant to 35 U.S.C. § 271.

30. AMD's acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD's wrongful acts in an amount subject to proof at trial. AMD's infringement of MicroUnity's exclusive rights under the '765 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

31. Upon information and belief, AMD's infringement of the '765 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

INFRINGEMENT OF U.S. PATENT NO. 6,725,356 B2

32. On April 20, 2004, United States Patent No. 6,725,356 B2 (the "356 patent") was duly and legally issued for an invention entitled 'System With Wide Operand Architecture, And Method.' MicroUnity was assigned the '356 patent and continues to hold all rights and interest in the '356 patent. A true and correct copy of the '356 patent is attached hereto as Exhibit H.

33. AMD has infringed and continues to infringe the '356 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD's processors and products with 3DNow and SSE-compatible technology including AMD's Athlon XP, Athlon MP, Sempron, Athlon64, Athlon64 FX, Athlon64 X2, Opteron, Dual-Core Opteron, Next Generation Opteron, Quad-Core Opteron, Turion64, Turion64 FX, Geode NX, Barcelona and Phenom processors, and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the '356 patent pursuant to 35 U.S.C. § 271.

34. AMD's acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD's wrongful acts in an amount subject to proof at trial. AMD's infringement of MicroUnity's

exclusive rights under the ‘356 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

35. Upon information and belief, AMD’s infringement of the ‘356 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys’ fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

INFRINGEMENT OF U.S. PATENT NO. 5,630,096

36. On May 13, 1997, United States Patent No. 5,630,096 (the “‘096 patent”) was duly and legally issued for an invention entitled ‘Controller For A Synchronous DRAM That Maximizes Throughput By Allowing Memory Requests And Commands To Be Issued Out Of Order.’ MicroUnity was assigned the ‘096 patent and continues to hold all rights and interest in the ‘096 patent. A true and correct copy of the ‘096 patent is attached hereto as Exhibit I.

37. AMD has infringed and continues to infringe the ‘096 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD’s processors, chipsets and other products with out-of-order memory request technology including AMD’s Athlon XP, Athlon MP, Sempron, Athlon64, Athlon64 FX, Athlon64 X2, Opteron, Dual-Core Opteron, Next Generation Opteron, Quad-Core Opteron, Turion64, Turion64 X2, Geode NX, Barcelona, Phenom, and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the ‘096 patent pursuant to 35 U.S.C. § 271.

38. AMD’s acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD’s wrongful acts in an amount subject to proof at trial. AMD’s infringement of MicroUnity’s exclusive rights under the ‘096 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

39. Upon information and belief, AMD’s infringement of the ‘096 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys’ fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

INFRINGEMENT OF U.S. PATENT NO. 7,213,131

40. On May 1, 2007, United States Patent No. 7,213,131 (the “131 patent”) was duly and legally issued for an invention entitled ‘Programmable Processor and Method for Partitioned Group Element Selection Operation.’ MicroUnity was assigned the ‘131 patent and continues to hold all rights and interest in the ‘131 patent. A true and correct copy of the ‘131 patent is attached hereto as Exhibit J.

41. AMD has infringed and continues to infringe the ‘131 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD’s processors, chipsets and other products with out-of-order memory request technology including AMD’s Athlon XP, Athlon MP, Sempron, Athlon64, Athlon64 FX, Athlon64 X2, Opteron, Dual-Core Opteron, Next Generation Opteron, Quad-Core Opteron, Turion64, Turion64 X2, Geode NX, Barcelona and Phenom processors, and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the ‘131 patent pursuant to 35 U.S.C. § 271.

42. AMD’s acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD’s wrongful acts in an amount subject to proof at trial. AMD’s infringement of MicroUnity’s exclusive rights under the ‘131 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

43. Upon information and belief, AMD’s infringement of the ‘131 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys’ fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

INFRINGEMENT OF U.S. PATENT NO. 7,222,225

44. On May 22, 2007, United States Patent No. 7,222,225 (the “225 patent”) was duly and legally issued for an invention entitled ‘Programmable Processor and Method for Matched Aligned and Unaligned Storage Instructions.’ MicroUnity was assigned the ‘225 patent and continues to hold all rights and interest in the ‘225 patent. A true and correct copy of the ‘225 patent is attached hereto as Exhibit K.

45. AMD has infringed and continues to infringe the '225 patent by its manufacture, use, sale, importation, and/or offer for sale of products utilizing AMD's processors, chipsets and other products with out-of-order memory request technology including AMD's Athlon XP, Athlon MP, Sempron, Athlon64, Athlon64 FX, Athlon64 X2, Opteron, Dual-Core Opteron, Next Generation Opteron, Quad-Core Opteron, Turion64, Turion64 X2, Geode NX, Barcelona and Phenom processors, and other products, and its contributing to and inducement of others to manufacture, use, sell, import, and/or offer for sale of infringing products. AMD is liable for its infringement of the '225 patent pursuant to 35 U.S.C. § 271.

46. AMD's acts of infringement have caused damage to MicroUnity, and MicroUnity is entitled to recover from AMD the damages sustained by MicroUnity as a result of AMD's wrongful acts in an amount subject to proof at trial. AMD's infringement of MicroUnity's exclusive rights under the '225 patent will continue to damage MicroUnity, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

47. Upon information and belief, AMD's infringement of the '225 patent is willful and deliberate, entitling MicroUnity to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

JURY DEMAND

48. MicroUnity demands a trial by jury on all issues.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff MicroUnity Systems Engineering, Inc., requests entry of judgment in its favor and against Advanced Micro Devices, Inc. as follows:

- a) Declaration that Advanced Micro Devices, Inc. have infringed U.S. Patent Nos. 5,742,840, 7,216,217, 5,794,061, 5,809,321, 6,006,318, 6,584,482 B1, 6,643,765 B1, 6,725,356, 5,630,096, 7,213,131, and 7,222,225;
- b) Permanently enjoining Advanced Micro Devices, Inc., and, the respective officers, agents, employees, and those acting in privity with them, from further infringement, contributory infringement and/or inducing infringement of U.S. Patent Nos. 5,742,840,

7,216,217, 5,794,061, 5,809,321, 6,006,318, 6,584,482 B1, 6,643,765 B1, 6,725,356, 5,630,096, 7,213,131, and 7,222,225;

c) Awarding the damages arising out of Advanced Micro Devices, Inc.'s infringement of U.S. Patent Nos. 5,742,840, 7,216,217, 5,794,061, 5,809,321, 6,006,318, 6,584,482 B1, 6,643,765 B1, 6,725,356, 5,630,096, 7,213,131, and 7,222,225 including enhanced damages pursuant to 35 U.S.C. § 284, to MicroUnity Systems Engineering, Inc., together with prejudgment and post-judgment interest, in an amount according to proof;

d) An award of attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law; and

e) For such other costs and further relief as the Court may deem just and proper.

DATED: September 7, 2007

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CERTIFICATE OF SERVICE

I hereby certify that the following counsel of record who are deemed to have consented to electronic service are being served this 13th day of September, 2007, with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3). Any other counsel of record will be served by, electronic mail, facsimile transmission and/or first class mail on this same date.

/s/ Kathryn P. Hoek
Kathryn P. Hoek